STATE OF MARYLAND

DHMH

Maryland Department of Health and Mental Hygiene
201 W. Preston Street • Baltimore, Maryland 21201
Martin O'Malley, Governor – Anthony G. Brown, Lt. Governor – Joshua M. Sharfstein, M.D., Secretary

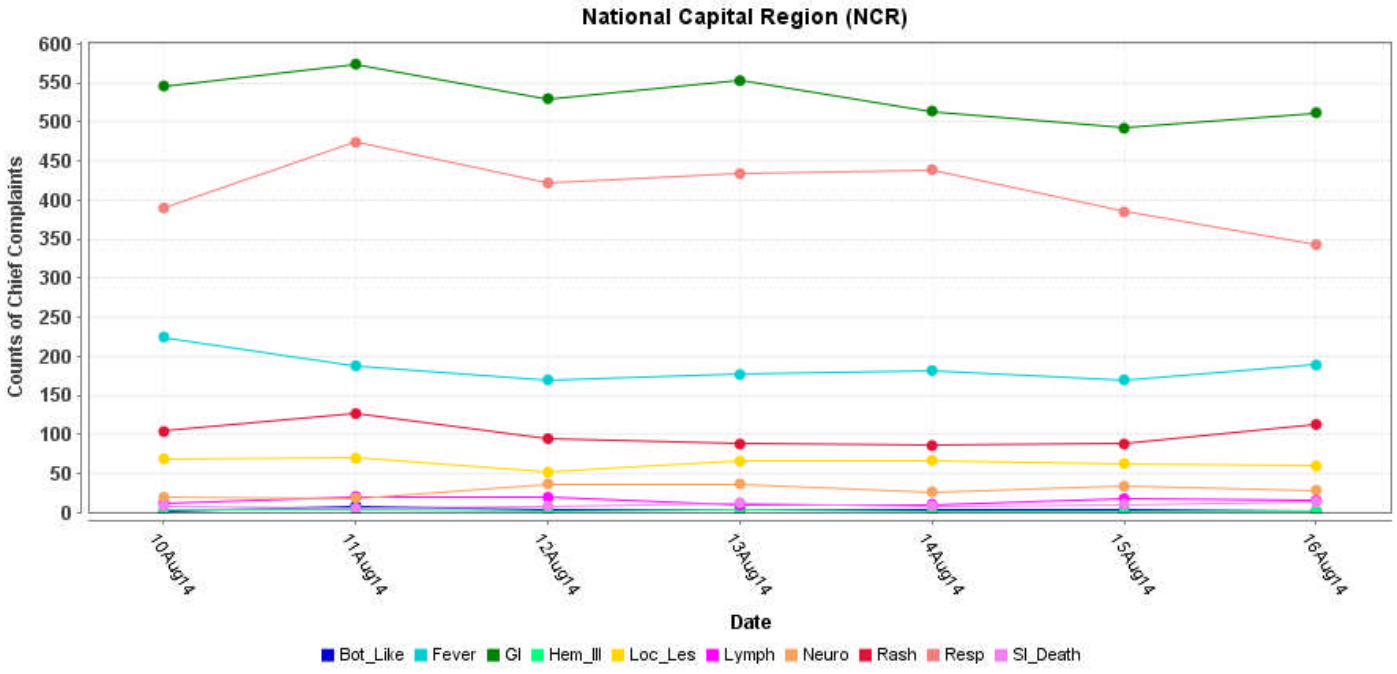
August 22, 2014

Public Health & Emergency Preparedness Bulletin: # 2014:33
Reporting for the week ending 08/16/14 (MMWR Week #33)

CURRENT HOMELAND SECURITY THREAT LEVELS

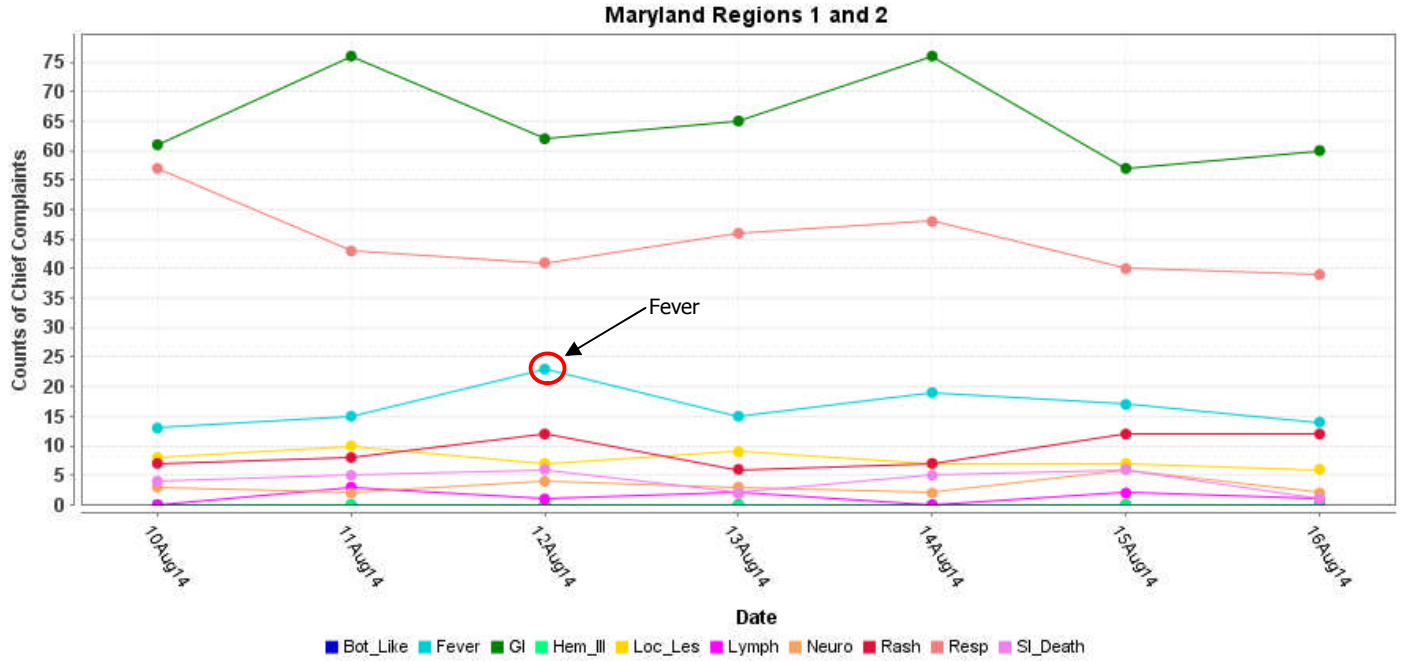
National: **No Active Alerts**
Maryland: **Level Four (MEMA status)**

SYNDROMIC SURVEILLANCE REPORTS
ESSENCE (Electronic Surveillance System for the Early Notification of Community-based Epidemics):
Graphical representation is provided for all syndromes, excluding the "Other" category, all age groups, and red alerts are circled. Red alerts are generated when observed count for a syndrome exceeds the 99% confidence interval. Note: ESSENCE – ANCR uses syndrome categories consistent with CDC definitions.
Overall, no suspicious patterns of illness were identified. Track backs to the health care facilities yielded no suspicious patterns of illness.

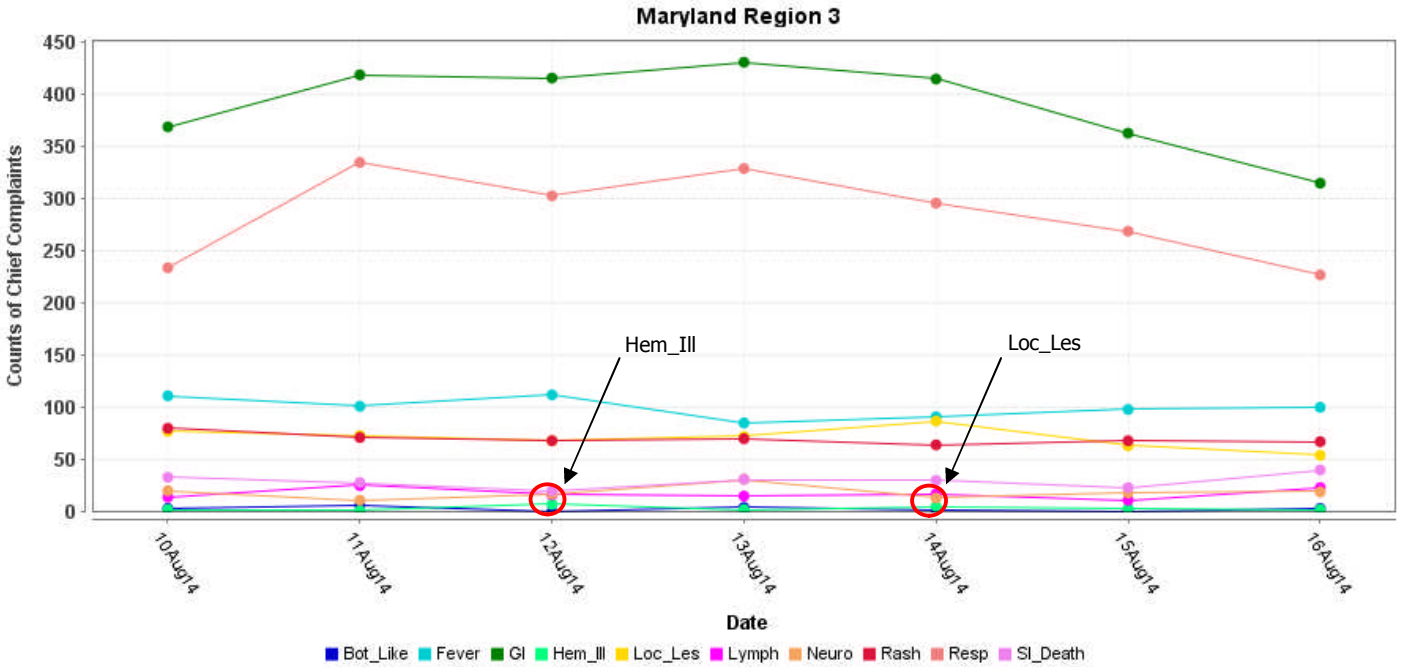


*Includes EDs in all jurisdictions in the NCR (MD, VA, and DC) reporting to ESSENCE

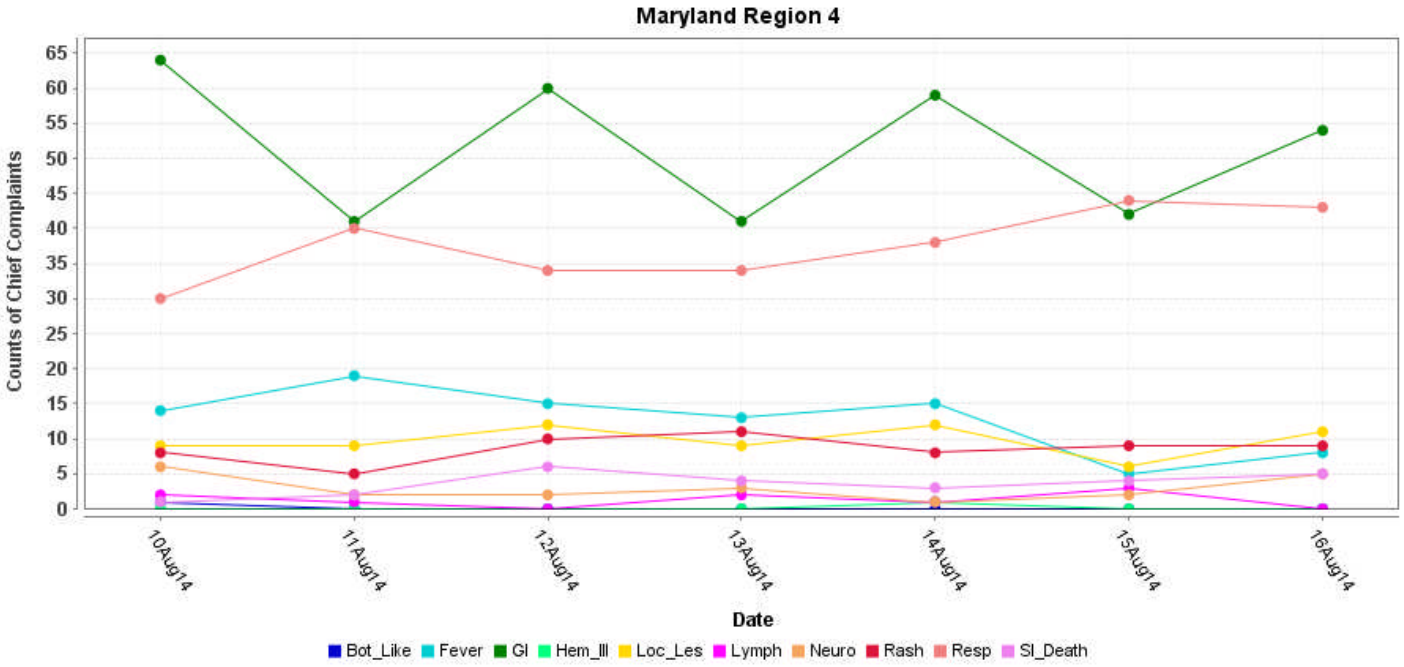
MARYLAND ESSENCE:



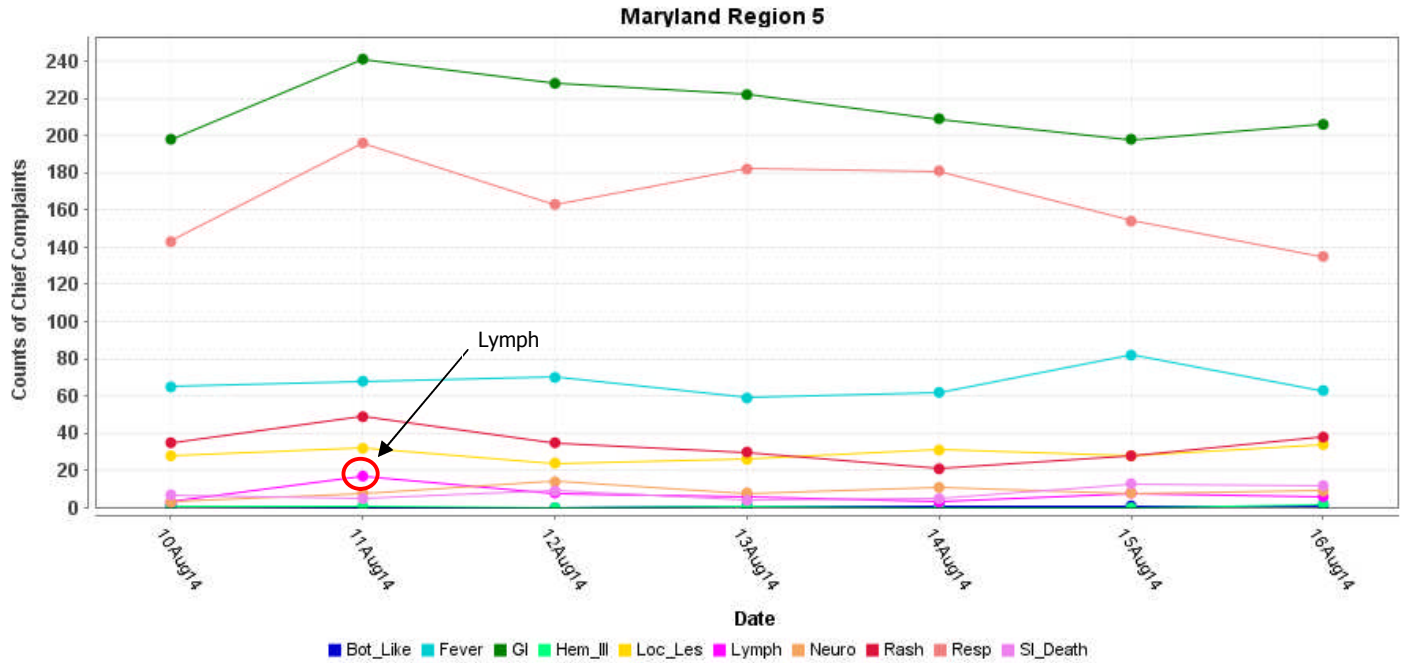
* Region 1 and 2 includes EDs in Allegany, Frederick, Garrett, and Washington counties reporting to ESSENCE



* Region 3 includes EDs in Anne Arundel, Baltimore City, Baltimore, Carroll, Harford, and Howard counties reporting to ESSENCE

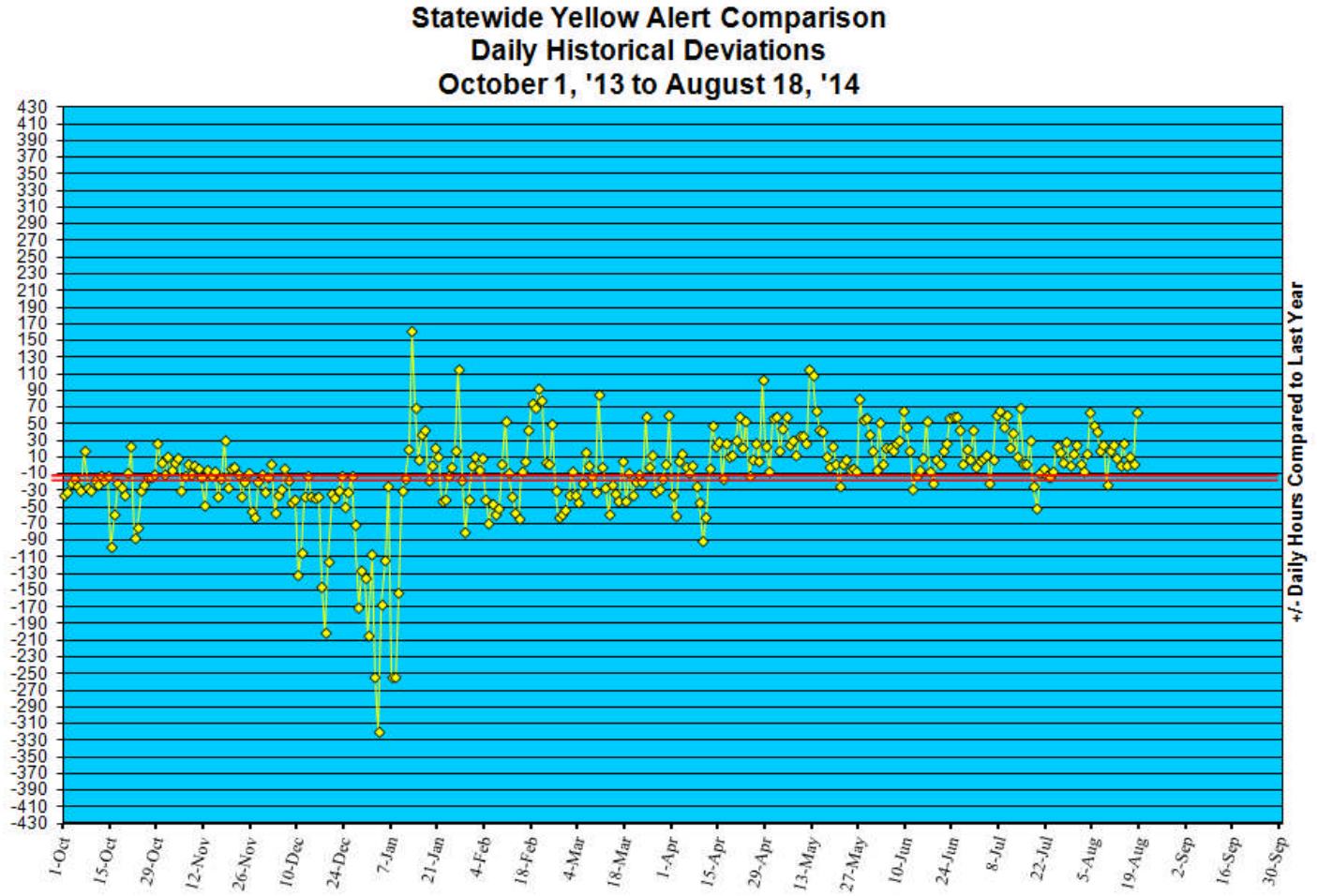


* Region 4 includes EDs in Cecil, Dorchester, Kent, Somerset, Talbot, Wicomico, and Worcester counties reporting to ESSENCE



* Region 5 includes EDs in Calvert, Charles, Montgomery, Prince George's, and St. Mary's counties reporting to ESSENCE

REVIEW OF EMERGENCY DEPARTMENT UTILIZATION



YELLOW ALERT TIMES (ED DIVERSION): The reporting period begins 10/01/13.

REVIEW OF MORTALITY REPORTS

Office of the Chief Medical Examiner: OCME reports no suspicious deaths related to an emerging public health threat for the week.

MARYLAND TOXIDROMIC SURVEILLANCE

Poison Control Surveillance Monthly Update: Investigations of the outliers and alerts observed by the Maryland Poison Center and National Capital Poison Center in July 2014 did not identify any cases of possible public health threats.

REVIEW OF MARYLAND DISEASE SURVEILLANCE FINDINGS

COMMUNICABLE DISEASE SURVEILLANCE CASE REPORTS (confirmed, probable and suspect):

Meningitis:	**Aseptic**	**Meningococcal**
New cases (August 10 – August 16, 2014):	9	0
Prior week (August 3 – August 9, 2014):	5	0
Week#32, 2013 (August 4 – August 10, 2013):	11	0

4 outbreaks were reported to DHMH during MMWR week 33 (August 10-16, 2014).

1 Foodborne outbreak
1 outbreak of GASTROENTERITIS/FOODBORNE associated with a Restaurant

3 Rash illness outbreaks
3 outbreaks of HAND, FOOT, AND MOUTH DISEASE associated with Daycare Centers

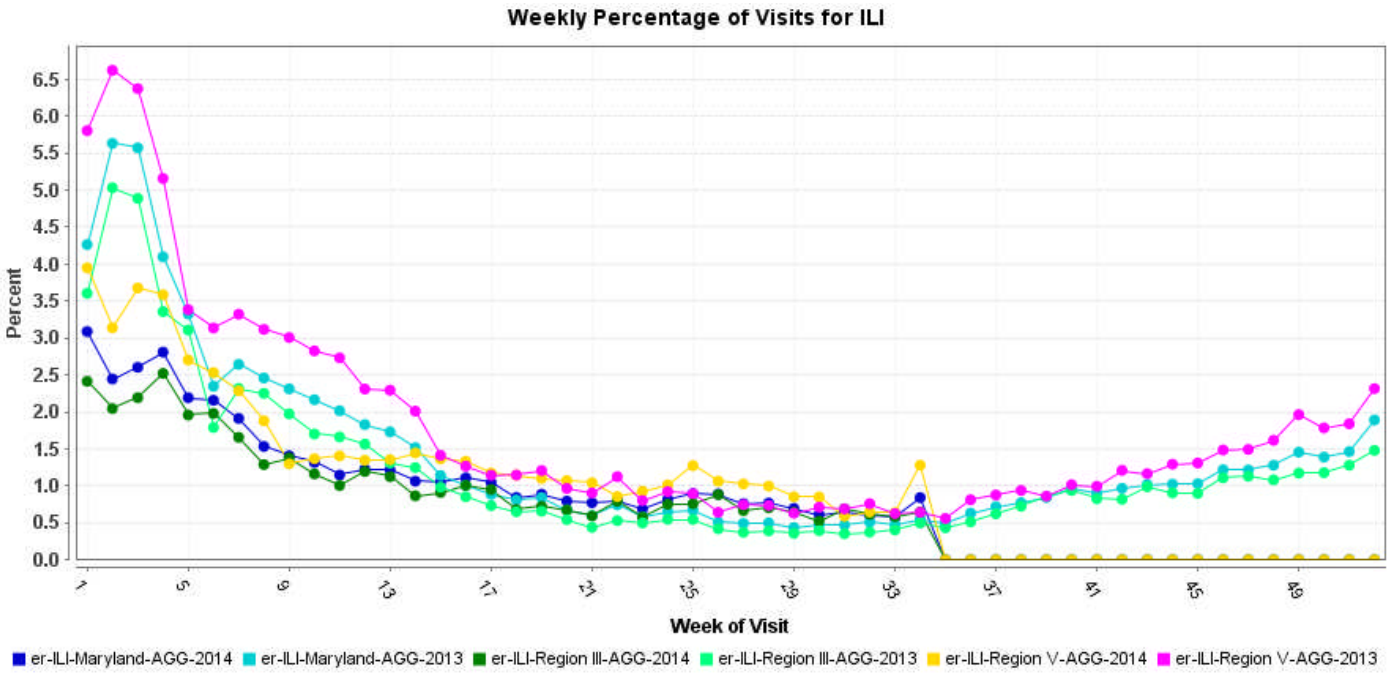
MARYLAND SEASONAL FLU STATUS

Seasonal Influenza reporting generally occurs October through May. The final reporting period for 2014 was MMWR Week 20.

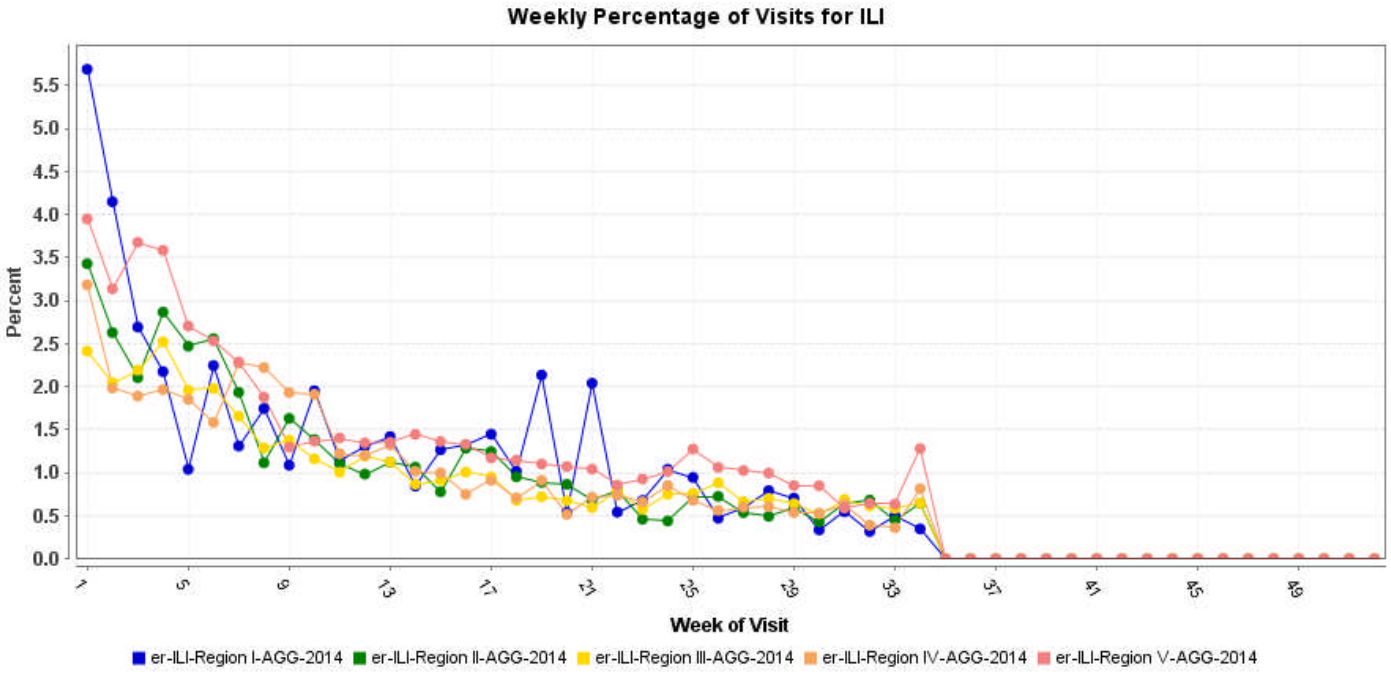
SYNDROMIC SURVEILLANCE FOR INFLUENZA-LIKE ILLNESS

Graphs show the percentage of total weekly Emergency Department patient chief complaints that have one or more ICD9 codes representing provider diagnoses of influenza-like illness. These graphs do not represent confirmed influenza.

Graphs show proportion of total weekly cases seen in a particular syndrome/subsyndrome over the total number of cases seen. Weeks run Sunday through Saturday and the last week shown may be artificially high or low depending on how much data is available for the week.



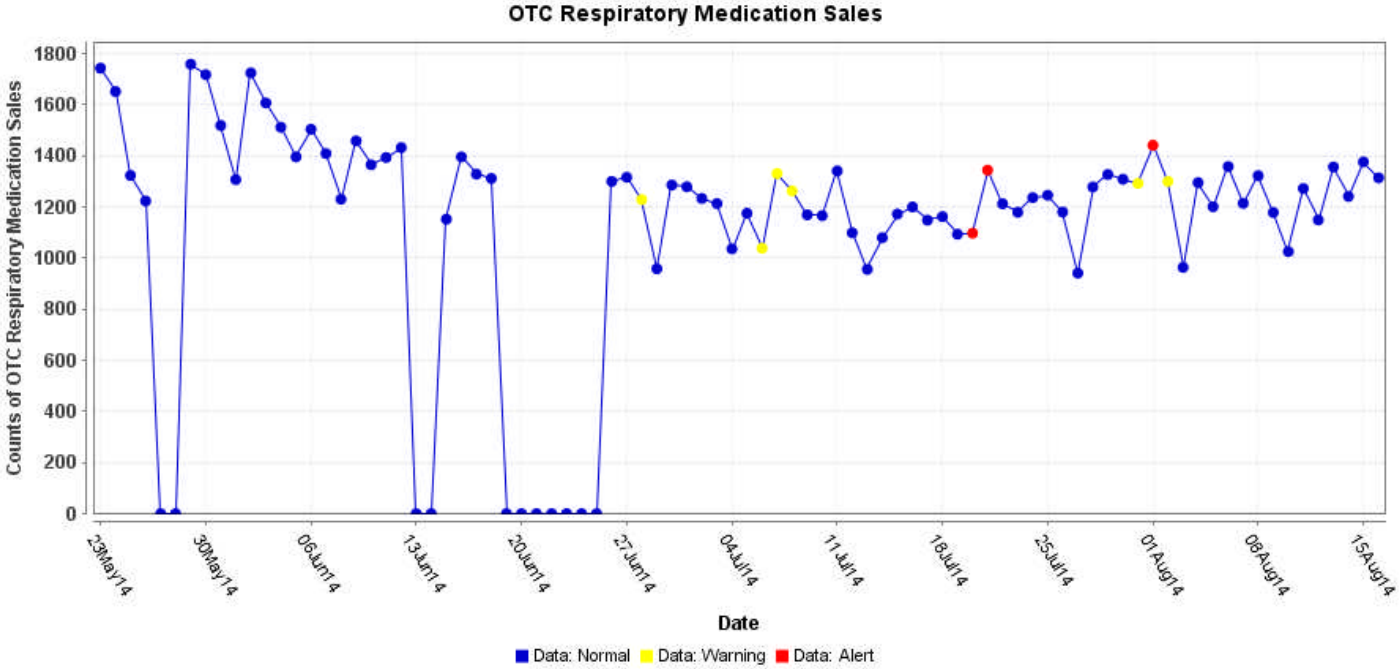
* Includes 2013 and 2014 Maryland ED visits for ILI in Metro Baltimore (Region 3), Maryland NCR (Region 5), and Maryland Total



*Includes 2014 Maryland ED visits for ILI in Region 1, 2, 3, 4, and 5

OVER-THE-COUNTER (OTC) SALES FOR RESPIRATORY MEDICATIONS:

Graph shows the daily number of over-the-counter respiratory medication sales in Maryland at a large pharmacy chain.



PANDEMIC INFLUENZA UPDATE / AVIAN INFLUENZA-RELATED REPORTS

WHO update: The current WHO phase of pandemic alert for avian influenza is ALERT. Currently, the avian influenza H5N1 virus continues to circulate in poultry in some countries, especially in Asia and northeast Africa. This virus continues to cause sporadic human infections with some instances of limited human-to-human transmission among very close contacts. There has been no sustained human-to-human or community-level transmission identified thus far.

Influenza A (H7N9) is one of a subgroup of influenza viruses that normally circulate among birds. Until recently, this virus had not been seen in people. However, human infections have now been detected. As yet, there is limited information about the scope of the disease the virus causes and about the source of exposure. The disease is of concern because most patients have been severely ill. There is no indication thus far that it can be transmitted between people, but both animal-to-human and human-to-human routes of transmission are being actively investigated.

Alert phase: This is the phase when influenza caused by a new subtype has been identified in humans. Increased vigilance and careful risk assessment, at local, national and global levels, are characteristic of this phase. If the risk assessments indicate that the new virus is not developing into a pandemic strain, a de-escalation of activities towards those in the interpandemic phase may occur. As of January 24, 2014, the WHO-confirmed global total of human cases of H5N1 avian influenza virus infection stands at 650, of which 386 have been fatal. Thus, the case fatality rate for human H5N1 is approximately 59%.

NATIONAL DISEASE REPORTS*

PLAGUE (COLORADO): 11 August 2014, A La Plata County woman has contracted bubonic plague, according to the San Juan Basin Health Department. The woman was hospitalized Sat 9 Aug 2014, before she was released to recover at home, Flannery O'Neil, a spokeswoman for the department, said Mon 11 Aug 2014. O'Neil said the department is investigating how the woman was exposed to the plague. The last case of bubonic plague in La Plata County, which lies in a region of the nation that predominantly sees the disease, was in 2006. A case was also confirmed in nearby Archuleta County in 2012, O'Neil said. "In recent decades, an average of 7 human plague cases have been reported each year nationwide," the department said. 4 other cases of plague, specifically pneumonic plague, have been reported in Colorado in 2014. All of those sickened lived in Adams County, according to state health officials. There have been 64 cases of human plague in Colorado since 1957, 9 of which were fatal. (Plague is listed in Category A on the CDC List of Critical Biological Agents) *Non-suspect case

EASTERN EQUINE ENCEPHALITIS (GEORGIA): 12 August 2014, Public Health officials are encouraging South Georgians to wear mosquito spray whenever outdoors to guard against mosquito-borne illnesses. A horse in Lowndes County [Georgia, USA] tested positive for Eastern equine encephalitis (EEE), and mosquito pools have tested positive for EEE and West Nile virus (WNV) this season. EEE and WNV are transmitted to humans and animals through the bite of an infected mosquito. "Even though it's rare for a human to be infected with either illness, anyone can become ill after being bit by an infected mosquito. The risk is higher for people who spend a lot of time outdoors or live in wooded or swampy areas," says Sheeley. (Plague is listed in Category A on the CDC List of Critical Biological Agents) *Non-suspect case

TULAREMIA (COLORADO): 12 August 2014, Local health officials confirm that a man has been hospitalized for tularemia. It is believed that he may have been exposed to the disease while mowing a property outside of Windsor. The patient became sick with tularemia in July 2014, according to the Larimer County Department of Health and the Environment, and was hospitalized in early August 2014 after 2 courses of antibiotic treatment offered no improvement. He was released after several days and is expected to make a full recovery. Tularemia was found in a Fort Collins rabbit in early July 2014, and is suspected at South Table Mountain Park in Jefferson County. Tularemia is a bacterial infection most frequently transmitted to people who have handled infected animals -- especially rabbits, hares, beavers, and muskrats. It is not considered contagious from person to person. (Tularemia is listed in Category A on the CDC List of Critical Biological Agents) *Non-suspect case

E COLI (MASSACHUSSETTS): 15 August 2014, Whole Foods Market locations, South Weymouth, MA and Newton, MA, are recalling 368 pounds of ground beef products that may be contaminated with E. coli O157:H7, the USDA's Food Safety and Inspection Service (FSIS) announced today, 15 Aug 2014. FSIS was notified of an investigation of E. coli O157:H7 illnesses on 25 Jun 2014. Working in conjunction with the Massachusetts Department of Public Health and the CDC, FSIS determined that there is a link between ground beef purchased at Whole Foods Market and this illness cluster. Based on epidemiologic investigation, 3 case-patients have been identified in Massachusetts with illness onset dates ranging from 13 and 25 Jun 2014. While the onset of illnesses was in June 2014, on 13 Aug 2014, additional laboratory results provided linkages between the 3 MA case-patients and ground beef purchased from Whole Foods. Traceback investigation indicated that all 3 case-patients consumed ground beef purchased from 2 Whole Foods Markets prior to illness onset. FSIS is continuing to work with state and federal public health partners on this investigation to determine a common source and will provide updated information as it becomes available. (Food safety threats are listed in Category B on the CDC List of Critical Biological Agents) *Non-suspect cases

INTERNATIONAL DISEASE REPORTS*

TULAREMIA (SPAIN): 12 Aug 2014, As happened in 2007, contact with crayfish in some areas of Castile and Leon because of their appreciated gastronomic value, appears to be related to some cases of human tularemia infection. At least 3 of the 5 cases of tularemia in Palencia are related to the freshwater crustacean, and there are 7 other patients who have symptoms of the infection caused by Francisella tularensis. As has also occurred 7 years ago [2007], the infection that is ravaging voles in Tierra de Campos, and especially Palencia, is the primary source of tularemia. In this sense, the crayfish act as a transmitter of the bacterium, acquired from water containing the corpses of voles, rabbits or hares affected by tularemia, to the people who handle the crustacean. It must be borne in mind that, in the summer, with water flow diminished, the crayfish can be found on or near the shores of the waters where they live, and can more easily come in contact with corpses of vertebrates infected with tularemia. There could be many more cases, since not only the fishing or manipulation of the crayfish are behind the cases of tularemia detected in recent days. The agricultural organization Asaja Palencia said, "There could be many more in the near future because it is impossible not to come in contact with the voles clogging sprayers, filling the siphons and roaming the field." The different routes of infection of tularemia cause different clinical pictures in the affected, although with a common denominator: fever, pain and discomfort. The chief of the territorial service for health of Castile and Leon in Palencia, Carmen Andres, explained that "in the 12 cases detected we have everything, ulceroglandular forms from direct contact and forms involving the respiratory tract." (Tularemia is listed in Category A on the CDC List of Critical Biological Agents) * Non-suspect cases

ANTHRAX (ROMANIA): 14 Aug 2014, Laboratory analysis at the Olt County Public Health Department [Romania] has confirmed a case of infection with anthrax. Disease was confirmed in the 60-year-old man admitted to hospital on [5 Aug 2014] in Caracal. "The initial results of laboratory analyses issued by the Olt County Public Health Department report that bacterial culture has been developed which has the characteristics of the anthrax bacillus. It is a 1st step towards a positive diagnosis. We are waiting for test results from the Cantacuzino Institute of Bucharest. From the clinical point of view it is anthrax. It should be noted that the condition of the patient is good. He has responded very well to treatment with penicillin," declared Mihnea Tuta, medical director of the Municipal Hospital of Caracal. Another man, 65, who arrived on [8 Aug 2014] at Caracal Hospital, was showing signs of infection with anthrax. The 2 had slaughtered a sick goat. Sanitary-Veterinary Service investigation is in progress. On the other hand, a woman in Olt County who was admitted to hospital in Pitesti was also suspected to have anthrax. She became sick after coming into contact with the carcass of a goat that died from the flooding. "The patient, aged 50 years, is under surveillance. From the clinical point of view it is anthrax, but it is a mild form that can be treated with antibiotics," declared Camelia Constantin, MD Infectious Diseases in the SJU Pitesti. Specimens were collected from all these patients and were sent for analysis at the Cantacuzino Institute in Bucharest; test results are expected in coming days. (Anthrax is listed in Category A on the CDC List of Critical Biological Agents) * Non-suspect case and suspect cases

SALMONELLA (UK, FRANCE, AUSTRIA): 15 Aug 2014, Health authorities are investigating a national outbreak of salmonellosis that has struck 156 people, mostly in Hampshire [England, UK]. Public Health England [PHE] said there have been 55 cases of _Salmonella [enterica_ serotype] Enteritidis in Hampshire, 25 in London, 33 in Cheshire and 43 in the West Midlands. Cases have also been seen in Austria and France. In the case of Hampshire, 32 of the cases were linked to The Real China restaurant in Eastleigh, which voluntary closed last month [July 2014]. It has since reopened. In Cheshire and Merseyside, 31 cases were connected with an outbreak at a Chinese takeaway [restaurant]. Of the 43 cases in the West Midlands, 34 were connected with the Birmingham Heartlands hospital outbreak, which led to the closure of 8 wards. The cases occurred as isolated clusters over several months and were dealt with locally. They are now being reassessed under a national investigation as being potentially linked, said PHE. "We are working with our colleagues across PHE, at the Food Standards Agency, in local authorities and with other public health organizations in Europe to investigate the cause of this outbreak," said Dr Paul Cleary, a consultant epidemiologist leading the PHE investigation. "We are making good progress and hope to have more conclusive evidence shortly." PHE said genetic testing methods revealed that all of the cases are infected with closely related strains, indicating that the cause of the illness is from a single source. A health official said it was too early to specify this source. Some food and environmental samples from catering outlets have tested positive for salmonella with the same genetic profile as seen in the outbreak cases, said PHE. In France, 49 people have been affected. (Food safety threats are listed in Category B on the CDC List of Critical Biological Agents) *Non-suspect cases

HANTAVIRUS (PANAMA): 15 Aug 2014, A 23-year-old woman and a 70-year-old man from El Bebedero and Flores de Tonosi, respectively, are currently admitted to the Joaquin Pabl Fanco Sayas Hospital in Las Tablas with a fever from [a] hantavirus [infection]. This was confirmed by Yamileth de Dominguez, Medical Director of this hospital center. Domiguez indicated that with these 2 new cases, a total of 45 cases have been detected in the Los Santos province so far in 2014. She further stated that of these [45], 38 are located in the Tonosi district. "Some 84 per cent of these cases of hantavirus [infection] are found in this Los Santo district," she reemphasized. She indicated that a large area of crop cultivation in the Bebedero locality is propitious for the appearance of this disease. (Hantavirus is listed in Category C on the CDC List of Critical Biological Agents) *Non-suspect cases

EBOLA (GUINEA, LIBERIA, NIGERIA, SIERRA LEONE): 15 Aug 2014, Between 12-13 Aug 2014, a total of 152 new cases of Ebola virus disease [EVD] (laboratory-confirmed, probable, and suspect cases) as well as 76 deaths were reported from Guinea, Liberia, Nigeria and Sierra Leone. On 13-14 Aug 2014, some airlines and social media and traditional media vehicles expressed concern that air travel to and from affected countries was a high-risk activity for the spread of EVD. To correct this misunderstanding, WHO called a press conference at the UN Palais des Nations in Geneva on 14 Aug 2014. Dr Isabelle Nuttall, speaking on behalf of WHO, said, "Air travel, even from EVD-affected countries, is low-risk for EVD transmission." Dr Nuttall further clarified modes of transmission for EVD and emphasized that the disease is not an airborne virus, unlike influenza or tuberculosis. The infection is transmitted to others through direct contact with the bodily fluids of a sick person, such as blood, vomit, sweat, and diarrhoea. Even if an individual infected with EVD travels by plane, the likelihood of other passengers and crew coming into contact with the individual's bodily fluids is very low. WHO does not recommend any travel or trade restrictions be applied except in cases where individuals have been confirmed or are suspected of being infected with EVD or where individuals have had contact with cases of EVD. (Contacts do not include properly-protected health-care workers and laboratory staff.) Temporary recommendations from the Emergency Committee with regard to actions to be taken by countries can be found at: IHR Emergency Committee meeting on Ebola outbreak in west Africa http://www.who.int/mediacentre/news/statements/2014/ebola-20140808/en (Viral hemorrhagic fevers are listed in Category A on the CDC List of Critical Biological Agents) *Non-suspect and suspect cases

National and International Disease Reports are retrieved from http://www.promedmail.org/.

OTHER RESOURCES AND ARTICLES OF INTEREST

More information concerning Public Health and Emergency Preparedness can be found at the Office of Preparedness and Response website: http://preparedness.dhmh.maryland.gov/ or follow us on Facebook at www.facebook.com/MarylandOPR.

Maryland's Resident Influenza Tracking System: http://dhmh.maryland.gov/flusurvey

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NOTE: This weekly review is a compilation of data from various surveillance systems, interpreted with a focus on a potential BT event. It is not meant to be inclusive of all epidemiology data available, nor is it meant to imply that every activity reported is a definitive BT event. International reports of outbreaks due to organisms on the CDC Critical Biological Agent list will also be reported. While not "secure", please handle this information in a professional manner. Please feel free to distribute within your organization, as you feel appropriate, to other professional staff involved in emergency preparedness and infection control.

For questions about the content of this review or if you have received this and do not wish to receive these weekly notices, please e-mail us. If you have information that is pertinent to this notification process, please send it to us to be included in the routine report.

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Syndrome Definitions for Diseases Associated with Critical Bioterrorism-associated Agents

Table: Text-based Syndrome Case Definitions and Associated Category A Conditions

Syndrome	Definition	Category A Condition
Botulism-like	ACUTE condition that may represent exposure to botulinum toxin ACUTE paralytic conditions consistent with botulism: cranial nerve VI (lateral rectus) palsy, ptosis, dilated pupils, decreased gag reflex, media rectus palsy. ACUTE descending motor paralysis (including muscles of respiration) ACUTE symptoms consistent with botulism: diplopia, dry mouth, dysphagia, difficulty focusing to a near point.	Botulism
Hemorrhagic Illness	SPECIFIC diagnosis of any virus that causes viral hemorrhagic fever (VHF): yellow fever, dengue, Rift Valley fever, Crimean-Congo HF, Kyasanur Forest disease, Omsk HF, Hantaan, Junin, Machupo, Lassa, Marburg, Ebola ACUTE condition with multiple organ involvement that may be consistent with exposure to any virus that causes VHF ACUTE blood abnormalities consistent with VHF: leukopenia, neutropenia, thrombocytopenia, decreased clotting factors, albuminuria	VHF
Lymphadenitis	ACUTE regional lymph node swelling and/ or infection (painful bubo- particularly in groin, axilla or neck)	Plague (Bubonic)
Localized Cutaneous Lesion	SPECIFIC diagnosis of localized cutaneous lesion/ ulcer consistent with cutaneous anthrax or tularemia ACUTE localized edema and/ or cutaneous lesion/ vesicle, ulcer, eschar that may be consistent with cutaneous anthrax or tularemia INCLUDES insect bites EXCLUDES any lesion disseminated over the body or generalized rash EXCLUDES diabetic ulcer and ulcer associated with peripheral vascular disease	Anthrax (cutaneous) Tularemia
Gastrointestinal	ACUTE infection of the upper and/ or lower gastrointestinal (GI) tract SPECIFIC diagnosis of acute GI distress such as Salmonella gastroenteritis ACUTE non-specific symptoms of GI distress such as nausea, vomiting, or diarrhea EXCLUDES any chronic conditions such as inflammatory bowel syndrome	Anthrax (gastrointestinal)

Syndrome Definitions for Diseases Associated with Critical Bioterrorism-associated Agents
(continued from previous page)

Syndrome	Definition	Category A Condition
Respiratory	ACUTE infection of the upper and/ or lower respiratory tract (from the oropharynx to the lungs, includes otitis media) SPECIFIC diagnosis of acute respiratory tract infection (RTI) such as pneumonia due to parainfluenza virus ACUTE non-specific diagnosis of RTI such as sinusitis, pharyngitis, laryngitis ACUTE non-specific symptoms of RTI such as cough, stridor, shortness of breath, throat pain EXCLUDES chronic conditions such as chronic bronchitis, asthma without acute exacerbation, chronic sinusitis, allergic conditions (Note: INCLUDE *acute exacerbation* of chronic illnesses.)	Anthrax (inhalational) Tularemia Plague (pneumonic)
Neurological	ACUTE neurological infection of the central nervous system (CNS) SPECIFIC diagnosis of acute CNS infection such as pneumococcal meningitis, viral encephalitis ACUTE non-specific diagnosis of CNS infection such as meningitis not otherwise specified (NOS), encephalitis NOS, encephalopathy NOS ACUTE non-specific symptoms of CNS infection such as meningismus, delerium EXCLUDES any chronic, hereditary or degenerative conditions of the CNS such as obstructive hydrocephalus, Parkinson's, Alzheimer's	Not applicable
Rash	ACUTE condition that may present as consistent with smallpox (macules, papules, vesicles predominantly of face/arms/legs) SPECIFIC diagnosis of acute rash such as chicken pox in person > XX years of age (base age cut-off on data interpretation) or smallpox ACUTE non-specific diagnosis of rash compatible with infectious disease, such as viral exanthem EXCLUDES allergic or inflammatory skin conditions such as contact or seborrheaic dermatitis, rosacea EXCLUDES rash NOS, rash due to poison ivy, sunburn, and eczema	Smallpox
Specific Infection	ACUTE infection of known cause not covered in other syndrome groups, usually has more generalized symptoms (i.e., not just respiratory or gastrointestinal) INCLUDES septicemia from known bacteria INCLUDES other febrile illnesses such as scarlet fever	Not applicable

Syndrome Definitions for Diseases Associated with Critical Bioterrorism-associated Agents (continued from previous page)

Syndrome	Definition	Category A Condition
Fever	ACUTE potentially febrile illness of origin not specified INCLUDES fever and septicemia not otherwise specified INCLUDES unspecified viral illness even though unknown if fever is present EXCLUDE entry in this syndrome category if more specific diagnostic code is present allowing same patient visit to be categorized as respiratory, neurological or gastrointestinal illness syndrome	Not applicable
Severe Illness or Death potentially due to infectious disease	ACUTE onset of shock or coma from potentially infectious causes EXCLUDES shock from trauma INCLUDES SUDDEN death, death in emergency room, intrauterine deaths, fetal death, spontaneous abortion, and still births EXCLUDES induced fetal abortions, deaths of unknown cause, and unattended deaths	Not applicable